



SIQAG

South Island Quality Assurance Group for Biochemistry

www.labnet.co.nz/siqag/biochemistry.html

Meeting Minutes

Subject: South Island Quality Assurance Group Meeting

Location: Pathology Committee Room

Meeting Date 22/07/2010

Attending:

Geoff Smith (GS) Chair	Chemical Pathologist	SCL
John Moodie (JM)	Project & Online Services Manager	CDHB
Chris Florkowski (CF)	Chemical Pathologist	CDHB
Richard MacKay (RM)	Chemical Pathologist	CDHB
Guy Mulligan (GM)	Chemical Pathologist	MLS
Lesney Stuart (LS)	Biochemistry Section Head	CDHB
Sandi Southby (SS)	Biochemistry	CDHB
Judith Early (JE)	Laboratory Manager, Ashburton	CDHB
Gordon Sutton (GSu)	Biochemistry Section Head	MLS
Heather Murray (HM)	Biochemistry Section Head	SCL
John Sheard (JS)	Biochemistry Section Head	WCDHB
Anne Kempthorne (AK)	Biochemistry Section Head	TDHB
Trevor Rollinson (TR)	Biochemistry Section Head	SCL
Roger Barton (RB)	Biochemistry	SCL
Sandy Leverett	Biochemistry	HBDHB
Ken Beechey	Haematology Section Head	CDHB
Chris Harper	Quality Facilitator	CDHB

Minute No	Minutes	Action
1)	<u>Introduction</u> GS welcomed everyone to the second annual SIQAG Biochemistry meeting.	
2)	<u>Minutes from the last meeting</u> The minutes from the last meeting were accepted with the following comments The Creatinine range agreed in the last set of minutes was subsequently amended with the implementation of the new IDMS method, this is reflected in the	

current SIQAG documentation.

It was confirmed that there was agreement from the Diabetes physicians that there should be sex differentiation for Microalbumin reference intervals.

There has been no progression with work standardise Blood Gas Reference Intervals and there does not appear to be much interest from the CDHB Respiratory department to progress.

3) South Island Quality Assurance Group for Biochemistry TOR

SIQAG Terms of Reference ratified

4) Appointment of next SIQAG Chair

Guy Mulligan has agreed to be the next SIQAG chair.

It was noted that it was a good idea to rotate the chair position.

5) Test Safe South Update

a) Reference Range Changes

Agreed SIQAG parameters should have been implemented by October 2009.

b) Putting results into Éclair

All laboratories have been sending test messages into the Test Éclair environment. MLS have been sending additional results into Éclair as part of the overall Test Safe South project.

c) Testing of result cumulation.

CHL has been co-ordinating the testing of result messages sent into Éclair to ensure they agree to SIQAG parameters. It has been identified that not all parameters across the laboratories have been implemented. Corrections / queries have been fed back to respective laboratories IS teams for action.

There have been issues identified with cumulation across laboratories and these will need to be worked through. It is unclear yet if the test groups used by each laboratory will cause a problem and this may be something the SIQAG group will need to look at.

The Test Safe South overall project manager is Dave Mackay. Laboratory IS departments have his details for any technical issues.

6) Defining reference intervals to avoid gaps

It has been shown that some of the reference intervals outlined in the SIQAG documentation have an element of ambiguity The following draft rules were proposed by GS for discussion.

“Age ranges should be written carefully to ensure that there are no “gaps” or discontinuities in the age ranges for a particular test and so that the ranges can

be interpreted in a uniform way when written into the various LIS.

If there is only one range for an analyte – write as “0 – Adult” This specifically states that the range is to cover all individuals through childhood into adulthood.

If there are a number of age ranges, the first interval should start at ‘0’ e.g. ‘0 – 1 year’.

The implication is that the range covers the span of ages from birth to 1 completed year (1 year, 0d).

The next age range should start where the previous range finishes – e.g. ‘>1 year – 5 years’ and then ‘>5 years – 10 years’ etc.

The simplest unit of time should be used except where this may cause confusion – e.g. use ‘1 month’ not ‘30 days’.

Unless the lower age limit for a range starts in adulthood (> 18 years), the last age range should specify that it includes adult subjects – e.g. ‘>11 years – Adult’, not ‘>11 years’.”

It was agreed that it was important to avoid any potential ambiguity and that these rules should be adopted and applied to the current SIQAG reference intervals.

Action: JM to add the content of the rules to the SIQAG document and then pass the document to RM.

JM

Action: RM to apply the rules to the existing SIQAG ranges.

RM

7) Comparability exercise Vitamin B12

When reviewing the Vitamin B12 plot data it was agreed that the assay results showed reasonable agreement.

It was also shown on the regression curve that there was good comparability between the Roche and Abbott methods.

When reviewing the reference interval data it there was quite a bit of variation at both the lower and upper limits of the range across the laboratories that supplied data.

A query was raised over how ARQAG came to adopt their reference intervals and it was agreed that it would be good to understand how they arrived at their ranges before we made any decisions on what the reference intervals should be.

Action: RM to contact ARQAG to discuss how they arrived at their reference intervals.

RM

8) Comparability exercise Folate

When reviewing the Folate plot data it was agreed that the assay results showed reasonable agreement across the range with a small positive bias.

It was also shown on the regression curve that there was good comparability between the Roche and Abbott methods.

- After reviewing reference interval data supplied it was agreed that the following be adopted by all laboratories;
- | | |
|---------------------|------------|
| Reference Interval: | >8 |
| Sexes: | Both sexes |
| Ages: | All ages |
| Units: | nmol/L |
| Decimal places | 0 |
- 9) Comparability exercise HCG
- When reviewing the HCG data it was shown that there was a bit more variability between the Roche / Abbott methods.
- It was also shown on the regression curve that there was good agreement up to about 5000. The critical area is between 0-25 and there is good agreement at this level.
- After reviewing reference interval data supplied it was agreed that the following be adopted by all laboratories;
- | | |
|---------------------|------------|
| Reference Interval: | <5 |
| Sexes: | Both sexes |
| Ages: | All ages |
| Units: | IU/L |
| Decimal places | 0 |
- 10) Comparability exercises
- It was noted how useful it was that the comparability work was done and thanks was made to Gordon Sutton from Med Lab and Heather Murray from SCL for co-ordinating the comparability work on these analytes.
- 11) CK
- The SCL paediatric ranges come from Soldin. It was agreed that paediatric ranges would not be required.
- After reviewing reference interval data supplied it was agreed that the following be adopted by all laboratories to align with ARQAG;
- | | |
|----------------------------|----------|
| Reference Interval male: | 60-220 |
| Reference Interval female: | 30-180 |
| Ages: | All ages |
| Units: | IU/L |
| Decimal places | 0 |
- 12) Phenytoin
- After reviewing reference interval data supplied it was agreed that the following be adopted by all laboratories;
- | | |
|----------------------------|----------|
| Reference Interval female: | 40-80 |
| Sexes | Both |
| Ages: | All ages |

	Units: umol/L Decimal places 0	
13)	<p><u>Carbamazepine</u></p> <p>After reviewing reference interval data supplied it was agreed that the following be adopted by all laboratories;</p> <p>Reference Interval female: 16-40 Sexes Both Ages: All ages Units: umol/L Decimal places 0</p>	
14)	<p><u>Valproate</u></p> <p>After reviewing reference interval data supplied it was agreed that the following be adopted by all laboratories;</p> <p>Reference Interval female: 350-700 Sexes Both Ages: All ages Units: umol/L Decimal places 0</p>	
15)	<p><u>Theophylline</u></p> <p>After reviewing reference interval data supplied it was agreed that the following be adopted by all laboratories;</p> <p>Reference Interval female: 55-110 Sexes Both Ages: n – adult (paediatric to be reviewed) Units: umol/L Decimal places 0</p> <p>It was queried whether a neonatal range was required for Theophylline. It was agreed that Paediatrician Nicola Austin be contacted to discuss.</p> <p>Action: RM to contact Nicola Austin.</p>	RM
16)	<p><u>Phenobarbitone</u></p> <p>After reviewing reference interval data supplied it was agreed that the following be adopted by all laboratories;</p> <p>Reference Interval female: 65-130 Sexes Both Ages: All ages Units: umol/L Decimal places 0</p>	
17)	<p><u>LDH</u></p> <p>It was noted that everyone is doing L → P</p>	

After reviewing reference interval data supplied it was agreed that the following be adopted by all laboratories;

Reference Interval:	110-220
Sexes	Both
Ages:	n – adult (paediatric to be reviewed)
Units:	IU/L
Decimal places	0

There was a query over the requirement for a paediatric range. It was agreed that this should be referred for further discussion.

Action: RM to arrange for further discussion on paediatric LDH requirements.

RM

18) Lipase

After reviewing reference interval data supplied it was agreed that the following be adopted by all laboratories;

Reference Interval female:	10-70
Sexes	Both
Ages:	All ages
Units:	IU/L
Decimal places	0

19) Pancreatic Amylase

After reviewing reference interval data supplied it was agreed that the following be adopted by all laboratories;

Reference Interval female:	8-53
Sexes	Both
Ages:	All ages
Units:	IU/L
Decimal places	0

20) Any other business

It was asked how long it would take for these reference interval changes to be implemented. It was noted that CHL took four months to implement the previous ranges due to complicated coding issues. The basic process will be that the documentation will be updated with the changes from this meeting then it would be sent out for ratification. At that point it can be passed to the relevant IS departments for implementation. Co-ordination of range implementation should be done.

Roche are withdrawing from 4th generation TNT and encouraging labs to move to the 5th generation. MLS and SCL are working together to make there changes at the same time, around mid October and queried whether CHL would like to change at the same time.

A query was raised regarding the reporting of Lipids. GS noted that SCL don't report ranges to practitioners but instead flag the SIQAG range and wanted to confirm that this is what everyone else does. This was confirmed and it was noted that it was important for practitioners to concentrate on risk and not on the values.

Discussion was raised around the reporting of Serum Globulins and looking to standardise where possible. It was noted that CHL don't do Serum Globulins. SCL / MLS to discuss offline and report discussion detail back to the group.

Urine protein reference intervals were raised and it was noted that Med Lab, Wairau and Timaru all have different ranges. It was asked if this could be put on forward on the next SIQAG agenda so we could identify what they are and where they come from.

Paediatric levels for Iron and Transferrin Saturation was also raised for the next agenda.

It was noted that PSA hadn't been added to the SIQAG documentation from the last meeting and that this would be actioned when the document is updated with these current changes.

End